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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,851	06/18/2001	Bogdan C. Maglich	HIENER.1CPC1CP	9955
20995	7590	08/19/2005	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			GREENE, DANIEL LAWSON	
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/883,851

Applicant(s)

MAGLICH, BOGDAN C.

Examiner

Daniel L. Greene Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/15/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments received 3/31/05 with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection based on applicant's IDS submitted 15 June 2005.
2. The Office acknowledges the receipt of applicant's terminal disclaimer on 8/30/2004.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

3. **Claims 1-17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by the May 1998 publication "ASSOCIATED PARTICLE IMAGING (API)", from Bechtel Nevada. submitted with applicant's IDS dated 15 June 2005,.**

Bechtel Nevada, clearly discloses, throughout the entire document, claims 1-17, a system for non-invasive stoichiometric detection and imaging of chemical elements and compounds in a material to be analyzed (see, for example page 1, section 1.0 Summary, etc.), the system comprising:

a particle generator (see, for example, page 4, Figure 2, and section 4.1.1 through section 4.1.2, etc.), the particle generator generating a plurality of first

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subatomic particles (neutrons, see, for example, page 5 last line of the third paragraph, etc.) and a plurality of second subatomic particles (an alpha particle, see, for example, page 5 second to last line of the third paragraph, etc.) at a target position which is a first distance from the material to be analyzed;

at least one photon detector (see, for example, page 8 section 4.1.3.2 through page 10 section 4.1.3.4, etc.), the at least one photon detector being capable of detecting photons resulting from irradiation of the material to be analyzed by the first subatomic particles and generating a plurality of first electrical signals;

a particle detector array (see, for example, page 7, section 4.1.3.1 Recoil Alpha Detectors, etc.) comprising a plurality of particle detectors (reads on the structure disclosed in said section 4.1.3.1 wherein the first and second paragraphs clearly disclose that the dynode plate structure of a conventional photomultiplier is replaced by a set of ten wire grids that preserve the x- and y-coordinates and then continues to describe how each of the two planes of 16 parallel wires of the anode are individually separated by high resistance and "Signals are collected from both ends of each plane for a total of four outputs", clearly is disclosing a plurality of particle detectors), the detector array at a second distance from the target position (see, for example, Figure 1 on page 2 wherein the position-sensitive PMT is clearly further away from the material to be analyzed than the tritiated target, etc), the second distance being larger than the first distance, the particle detectors each being capable of detecting at least one

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second subatomic particle (the alpha) from the particle generator, and generating a plurality of second electrical signals (see, for example, page 8, 1<sup>st</sup> paragraph, last line, etc); and

an analyzer operatively connected to the particle detector array and the at least one photon detector (See, for example, page 11+ section 4.1.4, Figures 5 and 6, section 4.2 spanning pages 14-19, etc.), comprising:

a processor (see, for example, page 11, section 4.1.4 in its entirety, page 14, Figure 7, etc.), the processor filtering the plurality of first electrical signals so as to produce a plurality of filtered electrical signals (See, for example, page 13, paragraphs 1-3, etc.); and

a plurality of electronic coincidence circuits (see, for example, page 12), the coincidence circuits detecting coincidences occurring between the plurality of filtered electrical signals and the plurality of second electrical signals.

Claim 4 is clearly disclosed in, for example, Section 1.0 Summary on page 1 and section 4.2.4 Data Display spanning pages 18 and 19, etc.

Claim 8 is clearly disclosed in, for example section 2.0 Introduction, etc.

Claim 12 is clearly disclosed in, for example, section 4.1.3.4 High Purity Germanium (HPGe) Detectors on page 10, etc.

Claim 16 is clearly disclosed in the last line of the first paragraph on page 31.

Claim 17 is clearly disclosed in, for example, page 26, section 7.4 Field Experiments spanning pages 29-31, etc.

Claims 2, 3, 5, 6, 7, 9-11, and 13-15 are clearly disclosed in the rejection of corresponding parts above.

**4. Claims 1-17 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter.**

Applicant clearly admits that he is not the sole inventor of the claimed subject matter in the HiEnergy Technologies, Inc. (HEIT) company interview from The Wall Street Transcript, and I quote, "HiEnergy Technologies was essentially just three scientists in 1997 who, under a DoD contract, came together to develop the stoichiometric detection of landmines. In collaboration with the University of California Berkeley, the Department of Energy and two other companies, including E,G & G Ortec, we were able to show to the government what would be a chemist's dream – an otherwise impossible dream made possible; to decipher chemical formulas of substance without analog chemistry" (underlining and emphasis added). It is not seen wherein applicant has listed any of the "essentially" other 2 scientists who came together to develop the stoichiometric detection of landmines and apparently it was the joint venture of the three (assuming applicant was even one of the three) in collaboration with the other organizations listed (i.e. U of C at Berkley, DOE, E,G & G, etc.) that allowed applicant and at least the other two scientists accorded by "we" to show to the government what would be a chemist's dream.

A review of Associated Particle Imaging (API), Bechtel Nevada, May 1998; Department of Energy Report No. DOE/NV11718-223 UC-700, which is

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apparently a follow up to the January 10, 1992 publication, Current Status of the Associated Particle Imaging System at STL, J.P. Hurley et al. clearly shows that at least Mr. Hurley and associates were also working, for several years (see, for example, Bechtel page 2, section 2.0 Introduction) in conjunction with the same organizations (see, for example Bechtel page 2, section 2.0 and page 3, section 3.0) This leads one to question who the other two scientists are (assuming the instant inventor is one of the three) that came together to develop the claimed subject matter. Obviously these two individuals must have had some contribution to the instant invention otherwise applicant would have stated "I" was contracted to develop the stoichiometric detection of landmines and "I" showed to the government what would be a chemist's dream.

Indeed in "Design of an Associated Particle Imaging System", Beyerle, et al., Nuclear Instruments and Methods in Physics Research, A299 pp 458-462 (1990) it appears three scientists, i.e. Beyerle, Hurley and Tunnell are reporting working on what appears to be a seemingly identical system as the instant invention.

In addition, a thorough review of all of the non-patent literature listed on the attached PTO-892 clearly discloses several other scientists by name (i.e. C.W. Peters, John Flourney, R. Morgado, E. Rhodes, etc., etc.,) working on the project, however nowhere is the instant inventor even mentioned or the other scientists claimed as co-inventors.

Therefore, for the reasons set forth above, it is believed the instant applicant did not invent the claimed subject matter, See MPEP § 2137.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as it clearly establishes a timeline of related inventions leading up to the instant invention.

6. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

7. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 15 June 2005 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not



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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Greene Jr. whose telephone number is (571) 272-6876. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can normally be reached, Mon-Fri 6:30am -4:00pm, at telephone number (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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8/11/2005

  
JACK KEITH  
PRIMARY EXAMINER  
SPE 3663